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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,453	09/16/2003	Mitsuhiro Sugimoto	4633-0107P	2514
2292	7590	01/25/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			CALEY, MICHAEL H	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/662,453

Applicant(s)

SUGIMOTO ET AL.

Examiner

Michael H. Caley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09162003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al. (U.S. Patent No. 6,639,589 “Kim”).

Regarding claims 1, 8, 9, 12, and 13, Kim discloses a display device having:

a display panel (Figure 4 element 202) and a plurality of wiring boards (Figure 4 elements 210, 210', or Figure 5 element 210 in portions “I” and “II”) placed along a periphery of the display panel,

wherein the display panel has panel side connection wiring (Figure 4 elements 247 and 248, Figure 5 elements 281, 282, and 283) for electrically connecting a first

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wiring board (Figure 5 portion “II”) and a second wiring board (Figure 5 portion “I”) adjacent to each other among the plurality of wiring boards (Figure 5),

each of the plurality of wiring boards having an insulating base (Figure 5 element 210), a board-side wiring group (Figure 5 elements 281, 282, and 283), and at least one driving circuit element for driving the display panel (Figure 4 element 212’),

the board-side wiring group is composed of element-connected wiring (Figure 5 element 282 in portion “II”) electrically connected to the driving circuit element and non-connected wiring (Figure 5 element 281 in portion “II”) having no electrical connection to the driving circuit element (Column 9 lines 7-24, Column 10 lines 12-44), and

the panel-side connection wiring is formed so that the element connected wiring of the first wiring board (Figure 5 element 282 portion “II”) and the non-connected wiring of the second wiring board (Figure 5 element 282 portion “I”) are electrically connected to each other (Figure 5, Figure 4 element 248a).

Regarding claim 2, Kim discloses the plurality of wiring boards as having wiring patterns identical in board-side wiring group (Figure 4 elements 210 and 210’).

Regarding claims 3 and 10, Kim discloses

a plurality of lines constituting the board-side wiring group as running on the insulating base without crossing each other (Figures 4 and 5 element 210),

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the non-connected wiring (Figure 4 element 213, Figure 5 elements 281, 282 portion "I") as in a roughly U shape as viewed from top with both ends at the periphery of the insulating base, and

at least one end of the element-connected wiring is located inside or outside both ends of the non-connected wiring at the periphery of the insulating base, or the element-connected wiring is interposed between a plurality of lines of the non-connected wiring (Figure 5 element 283 portion "I").

Regarding claims 4 and 11, Kim discloses the non-connected wiring as having another roughly U shape as viewed from top in at least a portion near one end extending in a direction away from the other end (Figure 5 elements 281 and 282 in and between portions "I" and "II").

Regarding claim 5, Kim discloses each of the plurality of wiring board (Figure 5 element 210 in portions "I" and "II") as having n or $n+1$ sets of lines (Figure 5 elements 281, 282, and 283) that constitute the board-side wiring group and are involved in signal transmission where n is the total number of driving circuit elements (2) of the plurality of wiring boards.

Regarding claim 6, Kim discloses each wiring board as further having board-side spare wiring electrically connected to the driving circuit element (Figure 4 element 215),

the display panel further having gate lines (Figure 4 element 241), source lines (Figure 4 element 242) crossing the gate lines, switching element electrically connected to the gate lines and the source lines (Column 4 lines 1-14), pixel electrodes connected to the gate lines and the

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source lines via the switching elements (Column 4 lines 11-14), and panel-side spare wiring electrically connected to the board side spare wiring (Figure 4 element 245), and

the panel-side spare wiring (element 245) crosses the source lines (element 242) via an insulating film near both ends of the source lines.

It is noted that the insulating film between the intersection of lines 245 and 242 is not explicitly mentioned by Kim. Such an insulation film, however, is an inherent feature between source lines and the spare wiring “gate lines” assembled and intersecting on a common substrate, such as disclosed by Kim. Such an insulation film is necessary to separate the lines at the intersection points and is also known as a gate insulation film or layer.

Regarding claim 7, Kim discloses the display panel as a liquid crystal panel (abstract).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael H. Caley whose telephone number is (571) 272-2286.

The examiner can normally be reached on M-F 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael H. Caley
January 11, 2005


mhc


TARIFUR R. CHOWDHURY
PRIMARY EXAMINER